CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method comprising the steps of:

receiving a first data stream of multimedia data, ~~wherein the multimedia data includes a first protocol and further wherein the first protocol is unknown~~;

selecting a first protocol from a plurality of available protocols;

processing a first packet of the first data stream based on the first test protocol to determine a first processed result; and

in response to determining the first processed result matches an expected result, parsing a second packet of the first data stream based on the first protocol.

~~determining, based upon a first portion of the first data stream, the first protocol of the multimedia data.~~

2. (Currently Amended) The method as in Claim 1, wherein the first protocol is ~~one of a set of predefined protocols~~ selected from the group consisting of ~~comprising~~ Motion Picture Experts Group 2 (MPEG-2), DIRECTV®, and Digital Versatile Disk (DVD) protocols.

3. (Currently Amended) The method as in Claim 1, further comprising:

storing a second portion of the first data stream in memory after the step of ~~determining~~ selecting the first protocol.

4. (Currently Amended) The method as in Claim 3, wherein the second portion of the first data stream is received after the first portion of the first data stream.

5. (Currently Amended) The method as in Claim 3, wherein the second portion of the first data stream includes the first portion of the first data stream.

6. (Currently Amended) The method as in Claim [[3]]1, further comprising generating a database based on ~~the second portion~~parsing the second packet.

7. (Currently Amended) The method as in Claim [[6]]1, ~~further comprising~~wherein parsing the second ~~portion~~packet comprises determining ~~of the first data stream to determine~~ a first set of descriptors associated with the first data stream.

8. (Previously Presented) The method as in Claim 7, wherein the first set of descriptors includes a descriptor selected from the group consisting of a network identifier, multiplex information, and program information.

9. (Original) The method as in Claim 8, wherein multiplex information includes transport stream identifiers and program identifiers.

10. (Original) The method as in Claim 8, wherein the program information includes program numbers, program recovery clock identifiers, video data identifiers and audio data identifiers.

11. (Original) The method as in Claim 8, wherein the set of descriptors further includes elementary stream information and closed captioning information.

12. (Original) The method as in Claim 11, wherein the elementary stream information includes data stream types and elementary stream identifiers.

13. (Previously Presented) The method as in Claim 3, wherein the memory includes a frame buffer.

14. (Cancelled) The method as in Claim 1, further comprising:
receiving a second data stream of multimedia data, different from the first data stream, wherein the multimedia data of the second data stream includes a second protocol, different from the first protocol and further wherein the second protocol is unknown;

determining, based upon a first portion of the second data stream, the second protocol of the multimedia data of the second data stream.

15. (Cancelled)

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45. (Cancelled)

46. (Currently Amended) A device comprising,

a transport stream demultiplexor comprising:

an input configured to receive multimedia data, wherein the multimedia data includes a first protocol and further wherein the first protocol is unknown;

a microcode engine configured to: ~~determine, based upon a first portion of the~~ ~~first data stream, the first protocol of the multimedia data;~~

select a first protocol from a plurality of available protocols;

process a first packet of the first data stream based on the first test protocol to determine a first processed result; and

in response to determining the first processed result matches an expected result, parse a second packet of the first data stream based on the first protocol.

47. (Previously Presented) The device of claim 46, wherein the device further comprises a memory configured to store a second portion of the first data stream after the microcode engine determines the first protocol.

48. (Previously Presented) The device of Claim 47, wherein the second portion of the first data stream is received at the input after the first portion of the first data stream.

49. (Previously Presented) The device of Claim 47, wherein the second portion of the first data stream includes the first portion of the first data stream.

50. (Previously Presented) The device of Claim 47, wherein the device further comprises a stream engine coupled to an output of the transport stream demultiplexor, the stream engine configured to generate a database based on the second portion of the first data stream.

51. (Previously Presented) The device of Claim 50, wherein the stream engine is further configured to parse the second portion of the first data stream to determine a first set of descriptors associated with the first data stream.

52. (Previously Presented) The device of Claim 51, wherein the first set of descriptors includes a descriptor selected from the group consisting of a network identifier, multiplex information, and program information.

53. (Previously Presented) The device of Claim 52, wherein multiplex information includes transport stream identifiers and program identifiers.

54. (Previously Presented) The device of Claim 52, wherein the program information includes program numbers, program recovery clock identifiers, video data identifiers and audio data identifiers.

55. (Previously Presented) The device of Claim 52, wherein the set of descriptors further includes elementary stream information and closed captioning information.

56. (Previously Presented) The device of Claim 55, wherein the elementary stream information includes data stream types and elementary stream identifiers.

57. (Previously Presented) The device of Claim 47, wherein the memory includes a frame buffer.

58. (Cancelled) The device of claim 46, wherein the input is configured to receive a second data stream of multimedia data, different from the first data stream, wherein the multimedia data of the second data stream includes a second protocol, different from the first protocol and further wherein the second protocol is unknown, and wherein the microcode engine is configured to determine, based upon a first portion of the second data stream, the second protocol of the multimedia data of the second data stream.

59. (New) The method of claim 1, further comprising:
in response to determining the first processed result does not match the expected result:
    selecting a second protocol from the plurality of available protocols;
    processing the first packet based on the second test protocol to determine a second
        processed result; and

in response to determining the second processed result matches an expected result, parsing a second packet of the first data stream based on the first protocol.

60. (New) The method of claim 1, wherein selecting the first protocol comprises selecting a first start code from a plurality of available start codes, the first start code indicative of a type of multimedia stream.

61. (New) The method of claim 1, wherein selecting the first protocol comprises selecting a first set of physical interface parameters from a plurality of available interface parameters.

62. (New) The method of claim 1, wherein selecting the first protocol comprises selecting a first packet length from a plurality of available packet lengths.

63. (New) The device of claim 46, wherein the microcode engine is configured to:
in response to determining the first processed result does not match the expected result:
    select a second protocol from the plurality of available protocols;
    process the first packet based on the second test protocol to determine a second processed result; and
    in response to determining the second processed result matches an expected result, parse a second packet of the first data stream based on the first protocol.

64. (New) The device of claim 46, wherein the microcode engine is configured to select the first protocol by selecting a first start code from a plurality of available start codes, the first start code indicative of a type of multimedia stream.

65. (New) The device of claim 46, wherein the microcode engine is configured to select the first protocol by selecting a first set of physical interface parameters from a plurality of available interface parameters.

66. (New) The device of claim 46, wherein the microcode engine is configured to select the first protocol by selecting a first packet length from a plurality of available packet lengths.